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The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte XIAORU WANG, DAVID ERDTMANN,
YONGCAI WANG, KAREN J. KLINGMAN,
and DAVID E. DECKER

Appeal 2009-2037
Application 10/665,960
Technology Center 1700

Decided:[1] April 10, 2009

Before EDWARD C. KIMLIN, LINDA M. GAUDETTE, and
KAREN M. HASTINGS, *Administrative Patent Judges*.

KIMLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1, 3-7, and 9-12.

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[1] The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the Decided Date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

We have jurisdiction under 35 U.S.C. § 6(b).

Claim 1 is illustrative:

1. Composite pigment polymer particles having a pigment phase and a polymer phase, said polymer phase of said particles being formed in the presence of said pigment in situ using an emulsion polymerization process wherein a first portion of an addition polymerization initiator consisting essentially of an initiator dissolved in a solvent is added to an aqueous pigment mixture before then adding a monomer mixture for forming the polymer phase to the pigment mixture to form a pigment/monomer mixture in a continuous process, the dispersion of composite pigment polymer particles being stable as defined by said particles not flocculating for up to 20 minutes when a dispersion containing said particles is added to acetone at a 1% by weight concentration; wherein the pigment mixture consists essentially of a pigment, a dispersant or surfactant and water, and wherein essentially no monomer is present in the aqueous pigment mixture.

The Examiner cites the following prior art (Ans. 2):

Lin	5,281,261	Jan. 25, 1994

Appellants' claimed invention is directed to composite pigment polymer particles wherein the polymer is bonded to the surface of the pigment particles. A polymerization initiator is added to an aqueous pigment mixture before adding a monomer which polymerizes on the surface of the pigment. The pigment mixture consists essentially of a pigment, a dispersant or surfactant, and water and contains essentially no monomer.

Appealed claims 1, 3-7, and 9 stand rejected under 35 U.S.C. § 112, first paragraph, written description requirement. Claims 1, 3-7, and 9-12 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claims 10 and 12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Lin.

We have thoroughly reviewed each of Appellants' arguments for patentability, as well as the Declaration evidence relied upon in support thereof. However, we find that the Examiner's rejections are well founded and in accord with current patent jurisprudence. Accordingly, we will sustain the Examiner's rejections for the reasons set forth in the Answer, and we add the following primarily for emphasis.

We agree with the Examiner that the claim 1 recitation "wherein essentially no monomer is present in the aqueous pigment mixture" does not have written descriptive support in the original Specification and, also, is indefinite within the meaning of § 112, second paragraph. While it is true, as argued by Appellants, that many patented claims recite the term "essentially", whether it is proper must be considered on a case-by-case basis. In the present case, a significant aspect of the claimed invention is that there is no monomer in the pigment mixture wherein the initiator is absorbed on the pigment surface to promote polymerization when the monomer is subsequently added. Since the original Specification and claims disclose that no monomer is present in the pigment mixture comprising initiator, we agree with the Examiner that Appellants' later amendment inserting "essentially no monomer is present" in the claims constitutes the introduction of a new concept that is not conveyed to one of ordinary skill in the art by the original Specification. This newly added limitation is particularly significant since Lin, the applied prior art, includes a portion of monomer in the pigment mixture as a dispersant, and the skilled artisan is not apprised of what level of monomer concentration is embraced by the

claim language "essentially no monomer", such that its concentration is patentably distinct from the low levels taught by the prior art. Manifestly, Appellants' amendment changing "no monomer" to "essentially no monomer" contemplates the inclusion of some monomer in the pigment mixture. A reasonable interpretation of the metes and bounds of the range of monomer concentration corresponding to the recited "essentially no monomer" has not been provided by Appellants.

We also concur with the Examiner that the claim 10 recitation "sequential addition of initiator to the pigment mixture essentially prior to adding monomer mixture" is indefinite inasmuch as it is not clear what time frame corresponds to "essentially prior to adding monomer mixture". We agree with the Examiner that the addition of initiator to the pigment mixture is either prior to, subsequent to, or simultaneous with the addition of the monomer mixture. Appellants have not provided the requisite clarification.

We now turn to the § 102 rejection of claims 10 and 12 over Lin. The claims define composite pigment polymer particles in a product-by-process format and, therefore, certain principles of patent jurisprudence apply. For instance, when a prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either § 102 or § 103 is eminently fair and acceptable. As a practical matter, the USPTO is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith. *In re Brown*, 459 F.2d 531, 535 (CCPA 1972). If the product in a product-by-process claim is the same as or obvious from a product of the

prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 697 (Fed Cir. 1985).

In the present case, we agree with the Examiner that the composite pigment polymer particles disclosed by Lin reasonably appear to be substantially the same as the composite pigment polymer particles within the scope of claims 10 and 12. Like the claimed invention, Lin expressly describes absorbing a polymerization initiator on the surface of pigment particles for chemically grafting a polymerized monomer on the surface of the pigment. Indeed, as pointed out by the Examiner, both Appellants and Lin polymerize a monomer of a sodium styrene sulfonic acid salt (*see* Lin, col. 9, ll. 15-25). Also, EXAMPLE VI of Lin exemplifies the sequential addition of monomer to the pigment dispersion comprising initiator. Hence, we agree with the Examiner that it is incumbent upon Appellants to demonstrate that there is a patentable distinction between composite pigment polymer particles within the scope of claims 10 and 12 and the composite pigment polymer particles exemplified and fairly described by Lin.

The Reczek Declaration falls far short of establishing a patentable distinction between the claimed composite pigment polymer particles and those described by Lin. For instance, the Declaration is hardly commensurate in scope with the degree of protection sought by claims 10 and 12. *In re Grasselli*, 713 F.2d 731, 743 (CCPA 1983). The Declaration fails to set forth any meaningful comparative data representative of the claimed invention but simply states that "[t]his preparation is different from the one used to prepare the inventive composite particle composition in that part of the monomer was contained in the colorant mixture along with the initiator prior to adding a second monomer mixture" (Decl. 2, para. 4).

Appealed claims 10 and 12 are of considerable breadth with respect to the particular polymer, initiator and pigment, and Appellants have proffered no showing that composite pigment polymer particles within the broad scope of the claims are substantially different than the composite pigment polymer particles of Lin.

Also, Appellants have not refuted the Examiner's criticism that the Declaration does not provide a meaningful comparison with the closest prior art, namely, Lin. *In re Johnson*, 747 F.2d 1456, 1461 (Fed. Cir. 1984). Specifically, the Examiner has set forth that "the declaration did not prepare composite colorant particles comprising monomer in the aqueous pigment mixture [but] the declaration adds monomer (and initiator) to an already prepared pigment dispersion" (Ans. 17, first para.).

In conclusion, based on the foregoing and the reasons well stated by the Examiner, the Examiner's decision rejecting the appealed claims is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a) (2008).

AFFIRMED

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